Amendments to the Claims:

1. (Currently Amended) A method for calculating high-resolution wafer parameter profiles comprising the steps of:

a) defining an appropriate product/device input dataset for a plurality of different die sizes and products, wherein the dataset comprises ~~a definition of a physical location of one die of each product and an indication for each product regarding whether the product is used or not~~ <u>information relating to the size of each die in two directions as well as the location of at least one of the corners of each die;</u>

b) collecting a die level <u>yield bin</u> dataset for one of the products/devices defined in step (a) by generating a table of data for the lots and wafers of said one of the products/devices with a virtual die coordinate for each die and a corresponding value;

c) calculating a single composite value for each said virtual die coordinate;

d) defining where on a virtual die it is desired to assign a composite value;

e) calculating physical coordinates for each die value using the corresponding virtual coordinate and a physical translation key;

f) repeating steps (b), (c), (d) and (e) for each of said die sizes and products defined in step (a);

g) merging the data from a plurality of files into one file;

h) defining a grid;

i) creating a table with all possible grid coordinates that would fit on a production wafer;

j) defining a smoothing algorithm;

k) calculating the smoothed value for each point on the grid from the combined data; and

l) plotting a wafer profile.

2. (Previously Presented) A method as defined in claim 1, further including the step of normalizing the composite die values so that they are mergeable with values from the other products.

3. (Previously Presented) A method as defined in claim 2, wherein a Poisson Defect Density normalizing algorithm is used to perform the step of normalizing the composite die values so that they are mergeable with values from the other products.

4. (Previously Presented) A method as defined in claim 2, wherein a max-min scaling normalizing algorithm is used to perform the step of normalizing the composite die values so that they are mergeable with values from the other products.

5. (Original) A method as defined in claim 1, wherein said appropriate product/device input dataset of step (a) are defined by a variety of devices with die level data and different die sizes.

6. (Original) A method as defined in claim 1, wherein said appropriate product/device input dataset of step (a) are defined by products/devices which represent the same process flow to be modeled.

7. (Previously Presented) A method as defined in claim 1, wherein said appropriate product/device input dataset of step (a) are defined by a number of lots from each device to calculate an average result value for each die.

8. (Original) A method as defined in claim 1, wherein said appropriate product/device input dataset of step (a) are defined by die size for each device.

9. (Original) A method as defined in claim 1, wherein said appropriate product/device input dataset of step (a) are defined by at least one reference physical correlation point between a specific virtual coordinate and an actual physical location on the wafer.

10. (Previously Presented) A method as defined in claim 1, wherein said calculated single composite value for each die coordinate from step (c) is an average of the data from all the individual lots and wafers corresponding to the die site.

11. (Previously Presented) A method as defined in claim 1, wherein said calculated single composite value for each die coordinate from step (c) is a max of the data from all the individual lots and wafers corresponding to the die site.

12. (Previously Presented) A method as defined in claim 1, wherein said calculated single composite value for each die coordinate from step (c) is a sum of the data from all the individual lots and wafers corresponding to the die site.

13. (Original) A method as defined in claim 1, wherein said calculated single composite value for each die coordinate from step (c) is a percentage of the data from all the individual lots and wafers corresponding die site.

14. (Original) A method as defined in claim 1, wherein said composite value from step (d) is assigned to a corner of the die nearest an edge of the wafer.

15. (Original) A method as defined in claim 1, wherein said composite value from step (d) is assigned to a corner of the die nearest a center of the wafer.

16. (Original) A method as defined in claim 1, wherein said composite value from step (d) is assigned from a center of the die.

17. (Original) A method as defined in claim 1, wherein a Cartesian coordinate system is used to calculate physical coordinates from step (e).

18. (Original) A method as defined in claim 1, wherein a polar coordinate system is used to calculate physical coordinates from step (e).

19. (Previously Presented) A method as defined in claim 1, wherein the wafer profile is scaled, in accordance with step (l), in equal increments of a range of values.

20. (Original) A method as defined in claim 1, wherein the wafer profile is scaled, in accordance with step (l), in equal percentiles of the data.

21. (Original) A method as defined in claim 1, wherein the wafer profile is plotted, in accordance with step (l), to show a three-dimensional contour map of the data.